

REMARKS

Claim 1 has been amended to recite that the bismaleimide powder is added to the die attach adhesive formulation at ambient temperature, that it does not dissolve such that the die attach adhesive formulation remains as a multi-phase system both before and after cure, and that the weight ratio of bismaleimide resin powder to liquid curable resin is 1:2.7 to 1:45. Claim 1 was further amended to clarify that the cohesive strength is measured at elevated temperature on the cured adhesive.

Support for the amendment relating to the multi-phase system can be found in paragraph [0027]. Support for the amendment relating to ambient temperature for mixing can be found in the example section, in which no heating or cooling in the preparation of the examples is disclosed. One skilled in the art would understand by inference that ambient temperature is meant when no heating or cooling is disclosed in the blending of components. Support for the amendment relating to the weight ratio of solid bismaleimide to liquid curable resins can be found in the examples. Support for the amendment relating to the cohesive strength at elevated temperature can be found in the examples.

Claim 3 has been amended to more particularly point out and distinctly claim the invention as the weight percent is calculated absent filler. Support for this amendment can be found in the Tables where the reported weight percent of the BMI is seen to be based on the organic chemistry and excludes the fillers.

Claim 4 has been amended to clarify that the bismaleimide is resin powder and not the liquid curable resin.

Claim 6 has been amended to clarify that the curable resin is a liquid resin.

Claim 7 has been amended to clarify that the maleimide resin is the liquid curable resin.

The Examiner has rejected claims 1 to 8 under 35 USC §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention; more specifically the applicant has not sufficiently explained the phrase "bismaleimide powder that does not dissolve". The amendment to claim 1 now clarifies that the bismaleimide powder does not dissolve at ambient temperature or at curing temperatures so that the formulation remains as a multiphase system both before and after cure. Applicant respectfully requests that the rejection on these grounds be removed.

The Examiner has rejected claims 1 to 8 under 35 USC §102(b) as anticipated by Repeka (US 5,747,615), and Boyd (US 6,313,248). Applicant respectfully traverses. In a major difference from the current invention, these references are directed to formulations prepared by slurry mixing. Repeka states at column 4, line 66 to column 5, line 3, that the solid resin is substantially soluble in the total resin at some temperature equal or lower than the curing temperature, but not substantially soluble under slurry conditions. In contrast, claim 1 as now amended is limited to formulations that can be prepared at room temperature and that remain as multi-phase systems both before and after cure. Boyd states that the weight ratio of solid bismaleimide to liquid coreactant is substantially about 1:1, which is deemed to include some variation up to 1.5:1 or 1:1.5. Claim 1 as now amended is limited to formulations in which the weight ratio of solid bismaleimide resin to liquid curable resin ranges from 1 : 2.7 to 1 : 45. In view of the amendments to the claims, applicant respectfully requests that the rejection on these grounds be removed and urges that the application is now in condition for allowance.